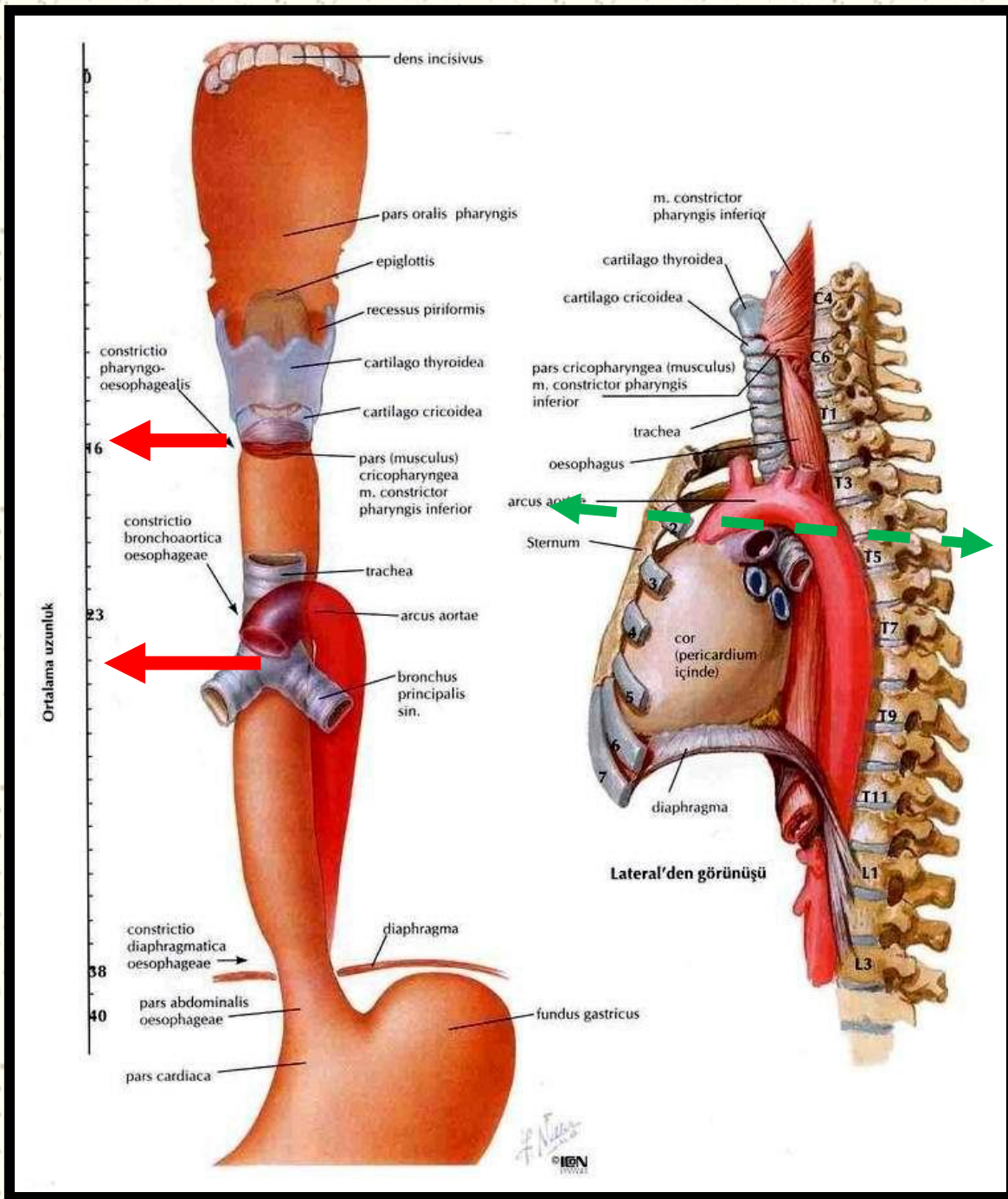


Trachea, Lungs and Pleura

Sevda LAFCI FAHRİOĞLU, MD. PhD.

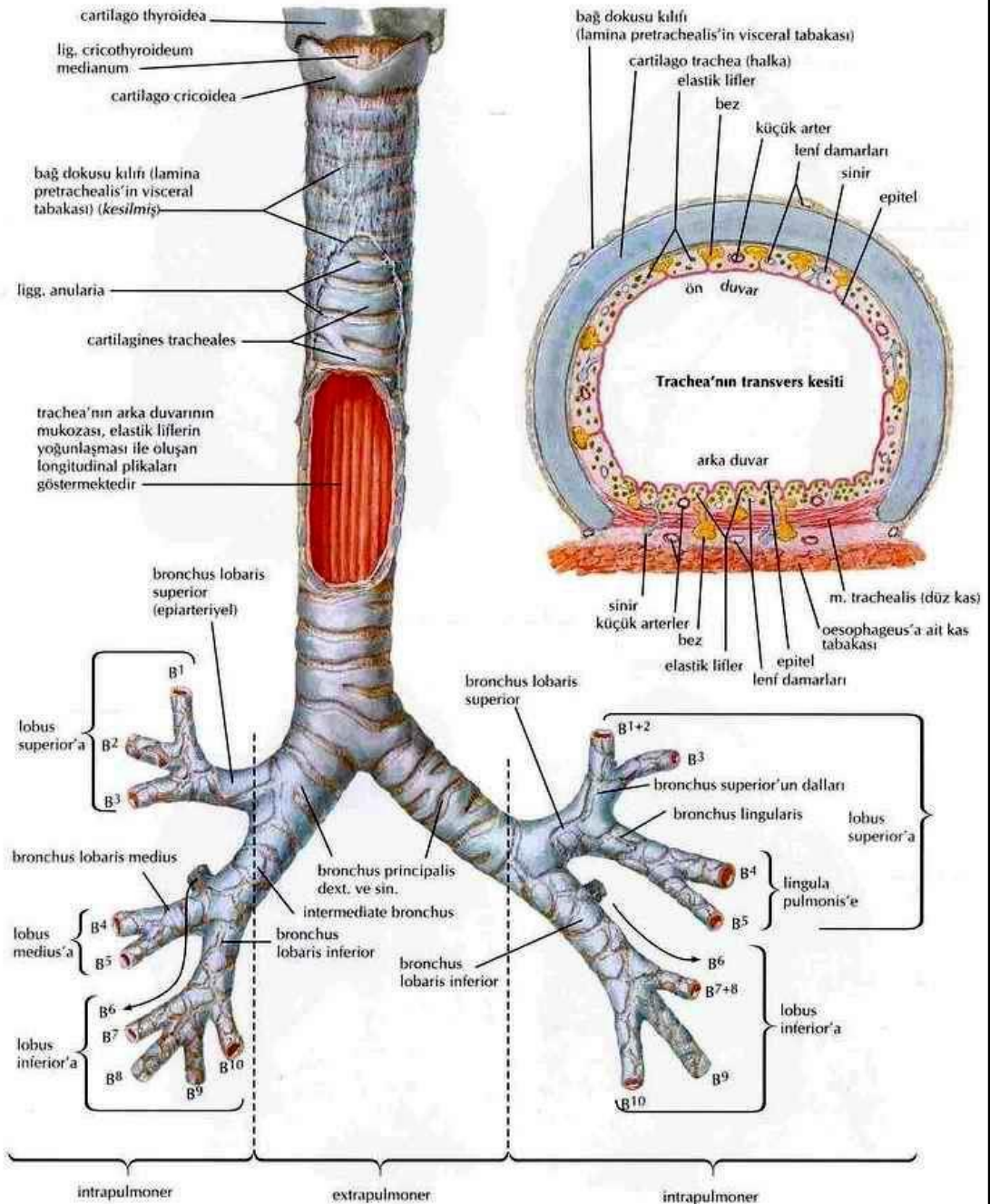
Trachea

- # C6-T5
- # Newborn T3
- # 12 y T4
- # Incline to post & R



Trachea

- ✚ Wide tube
- ✚ Continuation of the larynx
- ✚ 10-12 cm long
- ✚ 1.5-2 cm wide
- ✚ 16-20 tracheal "C" shaped cartilages



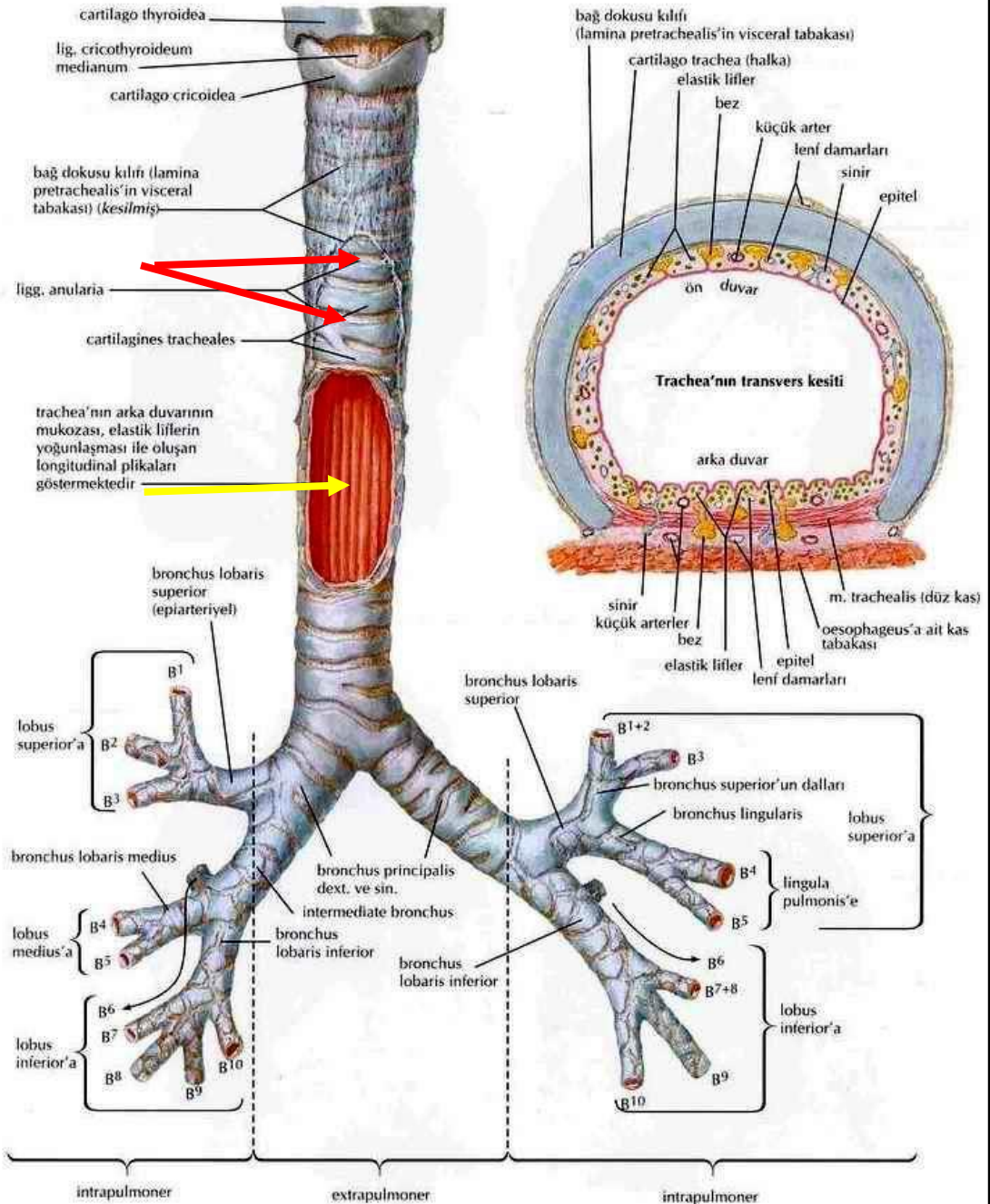
Trachea

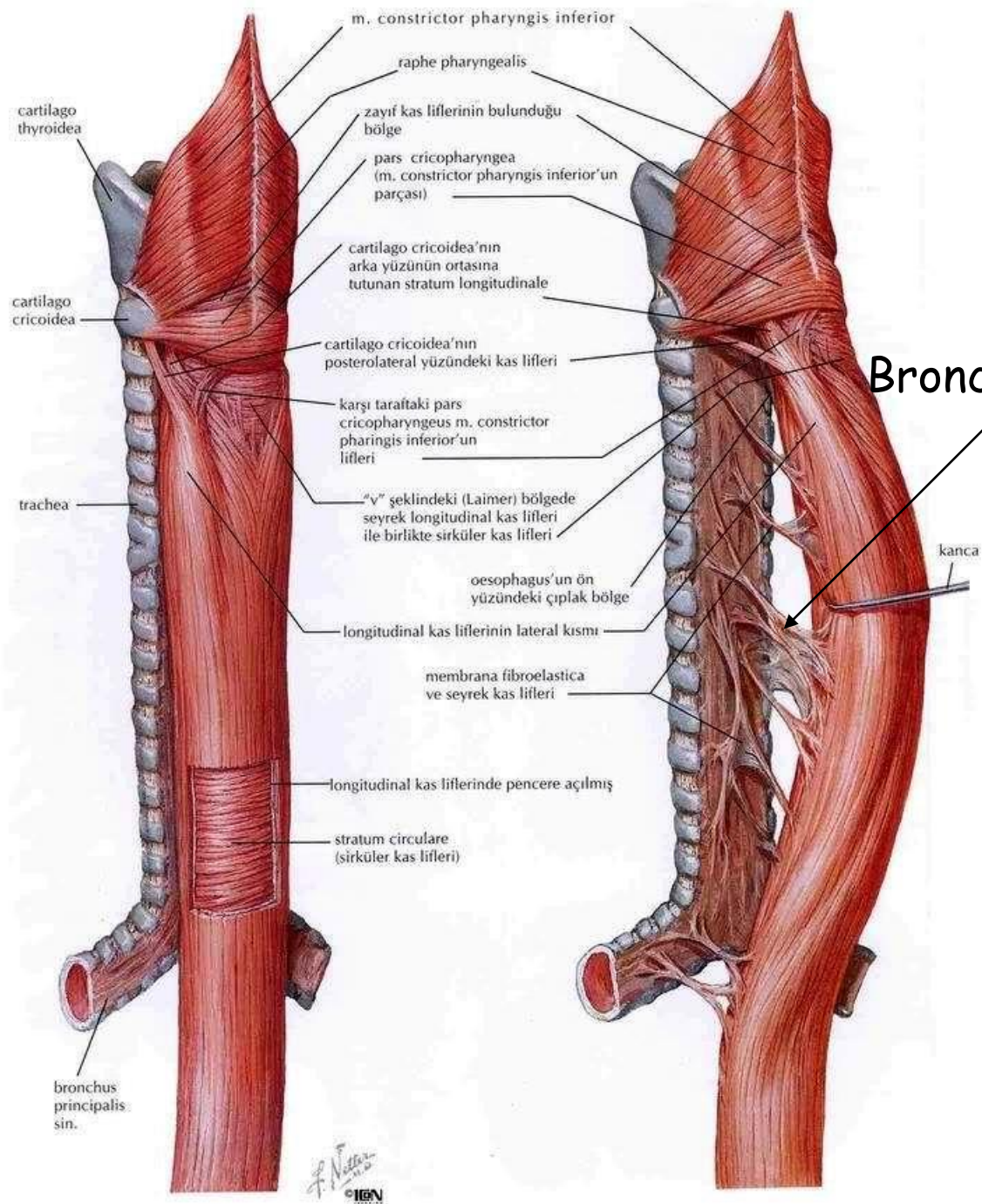
Post part of tracheal cartilage: Membranous wall/part: "Elastic membrane of trachea"

Tracheal m.(str. muscle:longit-transverse fibers)

Between tracheal cartilage: Annular lig

Carina: inner side of the last tracheal cart.

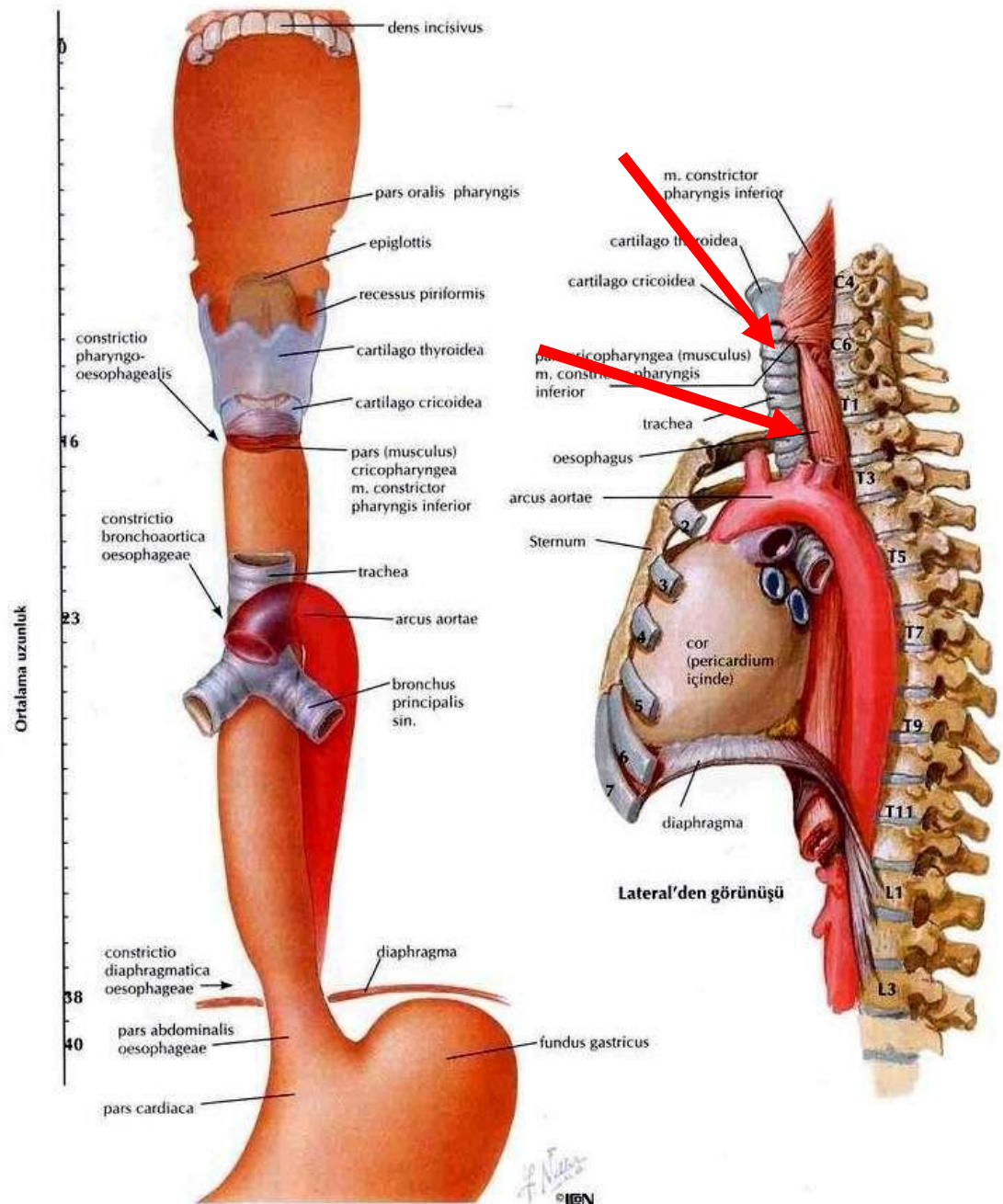




Trachea

Cervical part

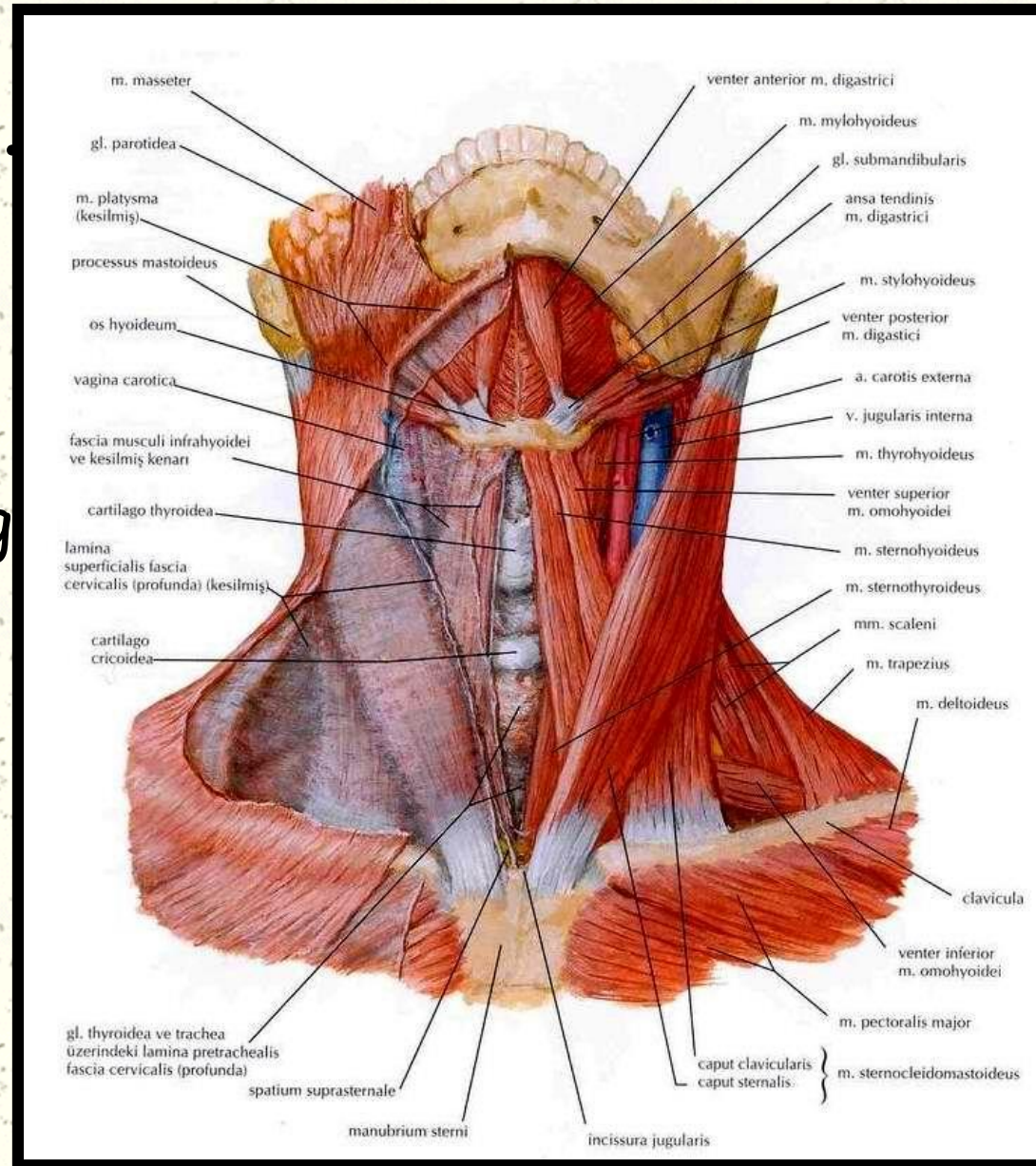
Thoracal part

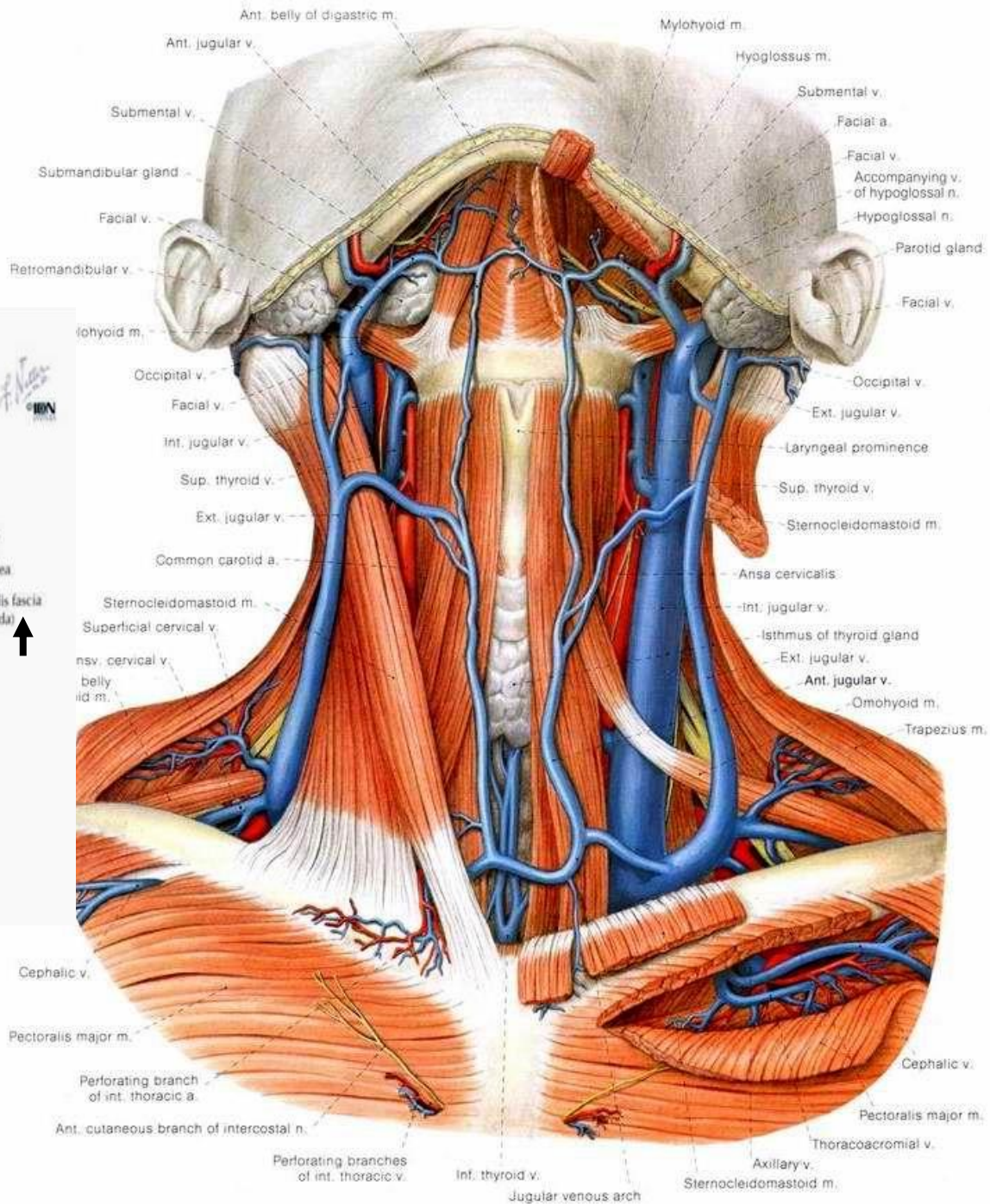
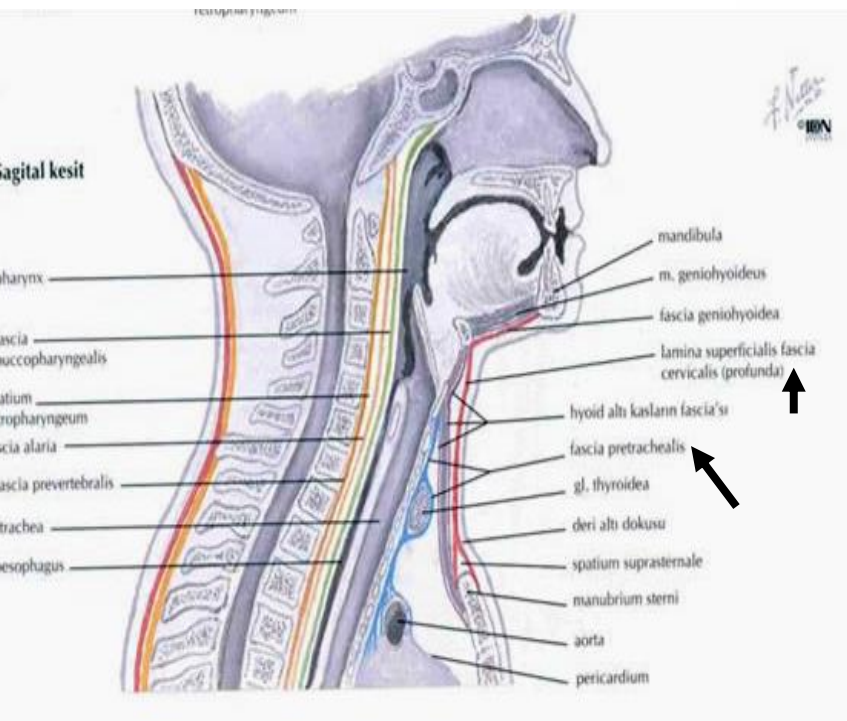


Cervical part- Ant.

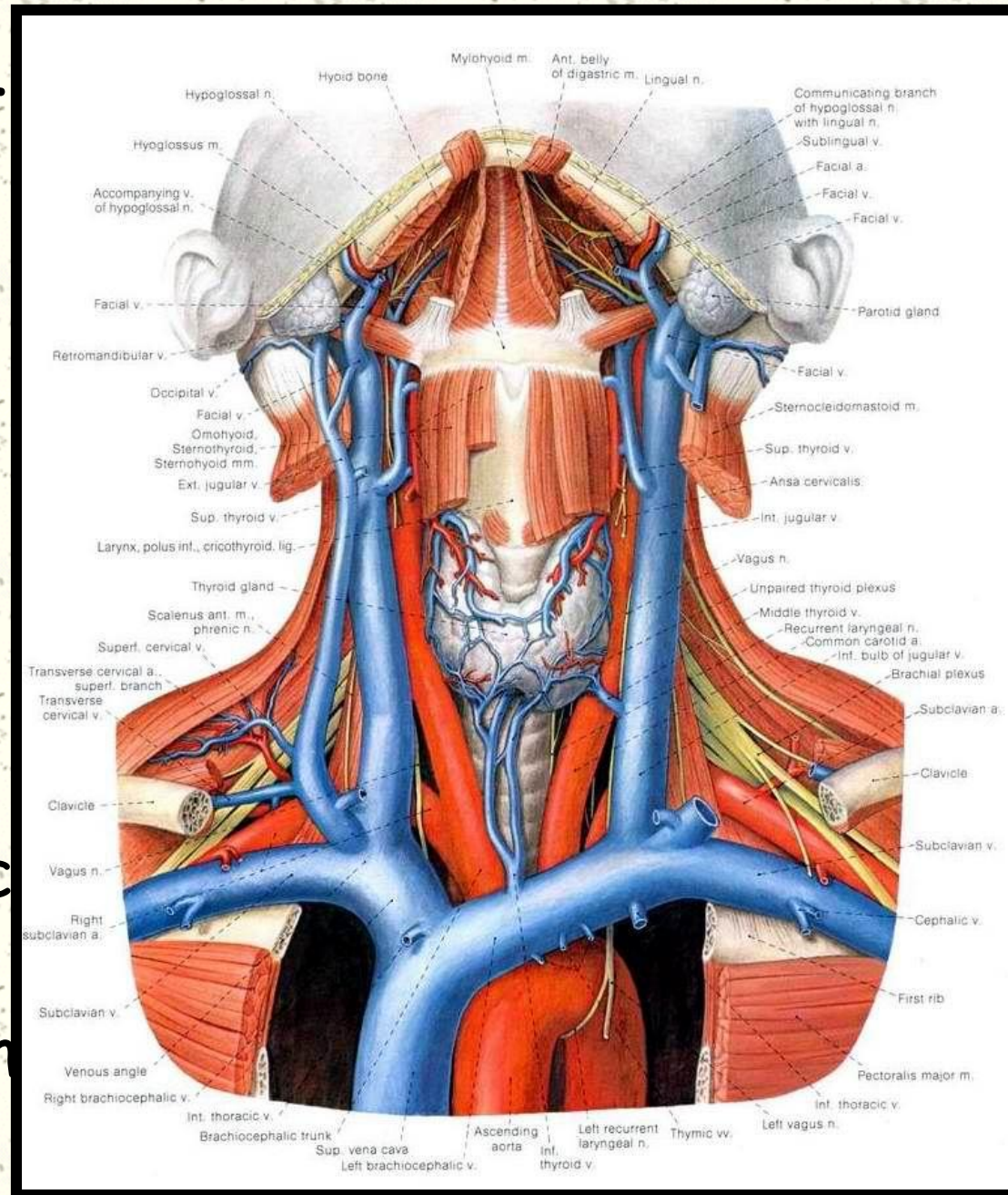
Superficial to deep:

- ✦ Superficial layer of deep cervical fascia
- ✦ Isthmus of thyroid g
- ✦ Thymus
- ✦ Pretracheal layer of deep cervical fascia
- ✦ Jugular venous arch
- ✦ Sternohyoid m.
- ✦ Sternothyroid m.
- ✦ Inf. thyroid vv.





- # Sternohyoid
- # Sternothyroid
- # Thymus
- # Inf thyroid vv
- # Manubrium
- # L brachiocephalic v
- # Brachiocephalic trunc
- # Arch of aorta
- # Tracheo-bronchial Inn

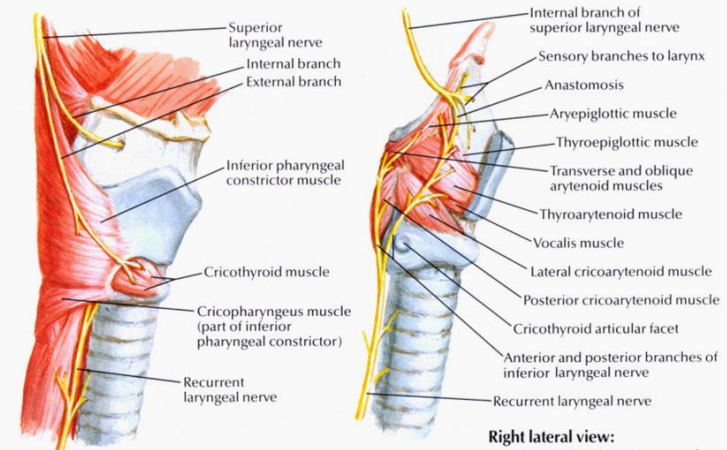


Thoracic part-L

- # Arch of aorta
- # L common carotid a
- # L subclavian a

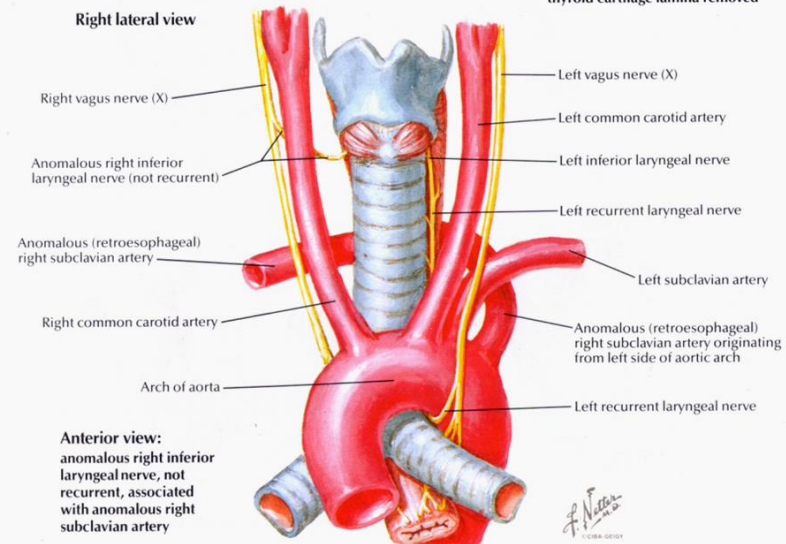
Nerves of Larynx

SEE ALSO PLATES 68, 69, 70, 223



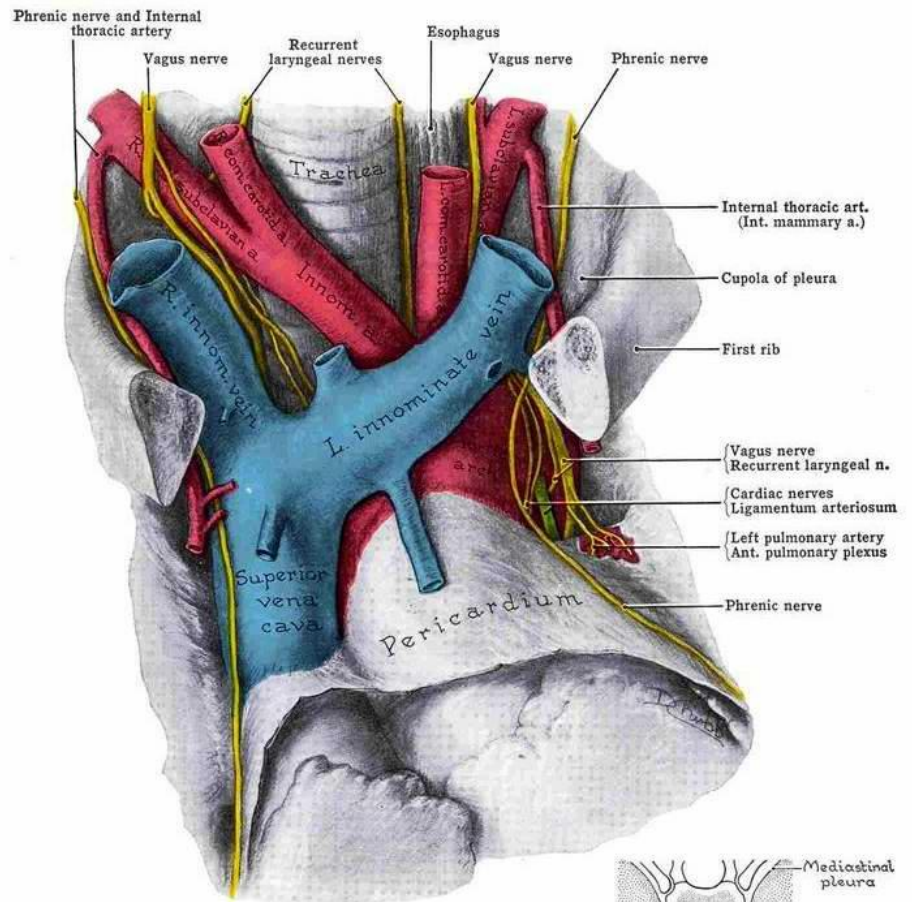
Right lateral view

Right lateral view:
thyroid cartilage lamina removed



Thoracic part-R

- # R lung & pleura
- # R brachiocephalic v
- # VCS
- # Azygos v
- # R vagus n

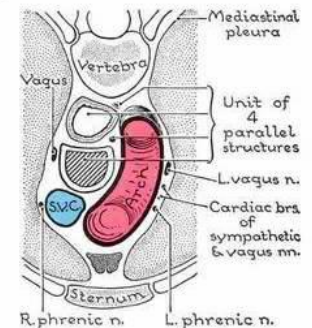


449 Root of the Neck: Superior Mediastinum—II

This is figure 448 with the thymus removed.

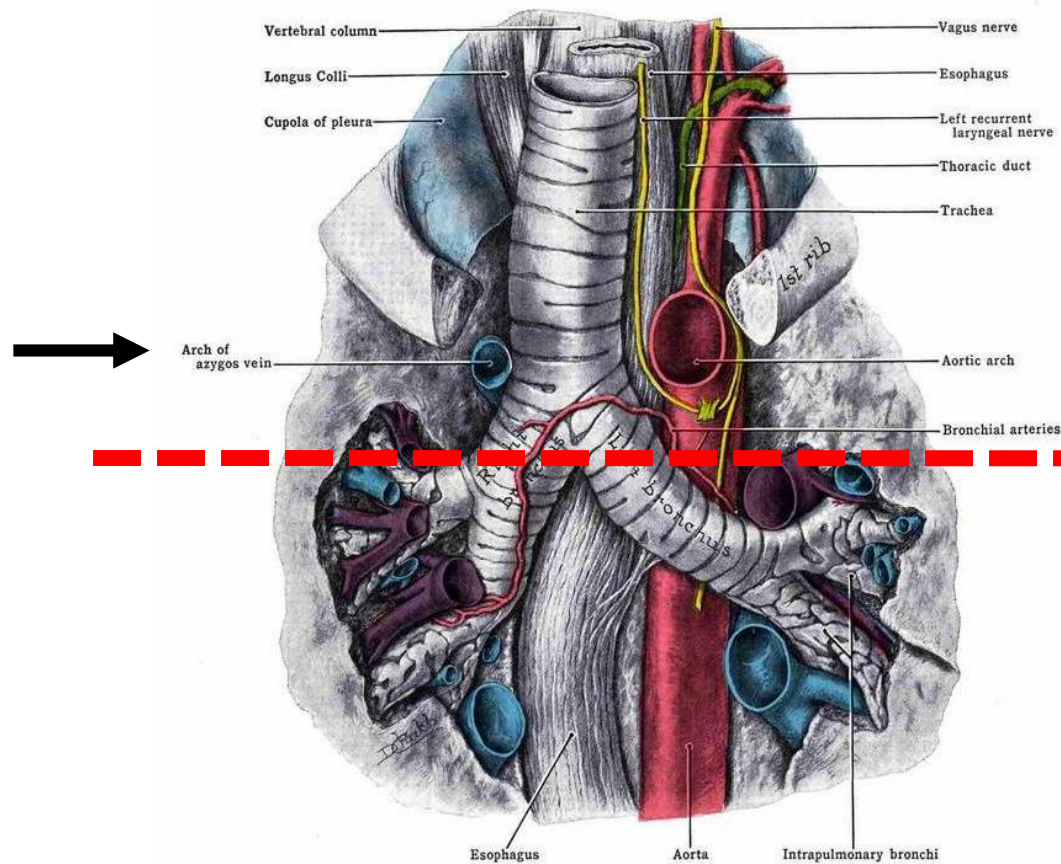
Observe:

1. The great veins, anterior to the great arteries.
2. The backward direction of the aortic arch and the nerves crossing its left side.
3. The lig. arteriosum, outside the pericardial sac and having the left recurrent nerve on its left side and the vagal and sympathetic branches to the superficial cardiac plexus on its right.
4. The right vagus, crossing the right subclavian a. (4th right primitive aortic arch), there giving off its recurrent branch, and passing medially to reach the trachea and esophagus.
5. The left vagus, crossing the aortic arch (4th left primitive aortic arch), there giving off its recurrent branch, and passing medially to reach the esophagus (fig. 450).
6. The left phrenic nerve, crossing the path of the vagus, but $\frac{1}{2}$ " anterior to it.



449.1

Diagram of the superior mediastinum, on cross-section, at the level of the aortic arch.



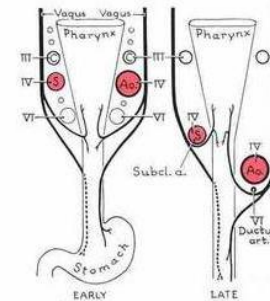
451 Bronchi: Superior Mediastinum—IV

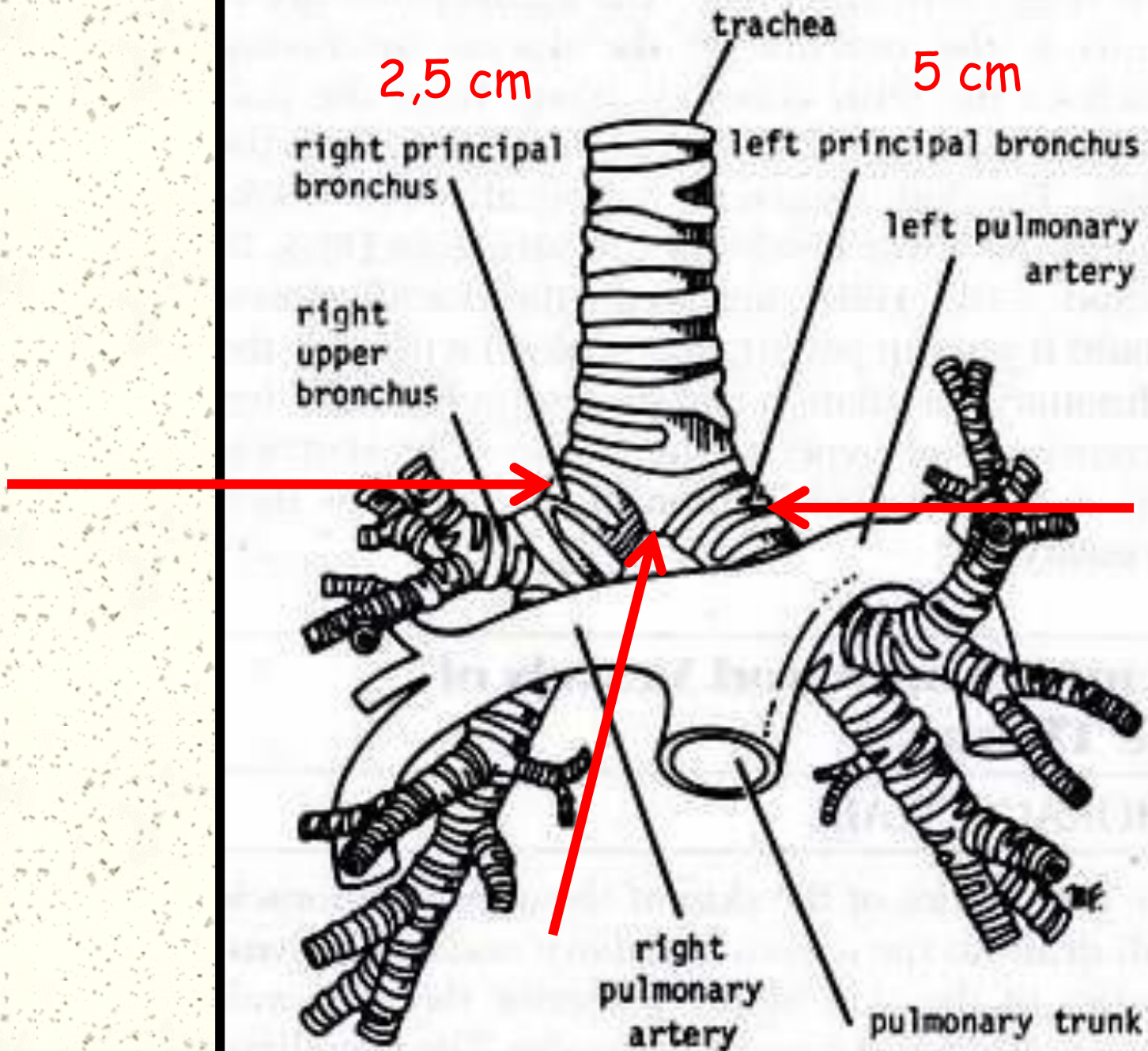
Observe:

1. Four parallel structures—trachea, esophagus, left recurrent laryngeal nerve, and thoracic duct. The esophagus bulges to the left of the trachea; the recurrent nerve lies in the angle between the trachea and esophagus; and the duct is at the side of the esophagus.
2. The aortic arch runs backwards on the left of these 4 structures, and the arch of the azygos vein passing forwards on the right.
3. The trachea inclining to the right, hence the right bronchus is more vertical than the left, and its stem is shorter and wider, its first branch arising about 1" from the bifurcation, whereas the first left branch arises about 2" from the bifurcation.
4. The U-shaped rings of the trachea, commonly bifurcated; the ring at the bifurcation of the trachea being V-shaped; the intrapulmonary rings forming a mosaic around the bronchi.
5. The occasional broncho-esophageal muscle, attaching the esophagus to the left bronchus.

451.1

Scheme to explain asymmetrical courses of right and left recurrent laryngeal nerves. (III, IV and VI = embryonic aortic arches.)





Vessels of trachea

Arteries

- # Tracheal brr of inf thyroid a.
- # Bronchial brr of thoracal aorta & 3. posterior intercostal a.

Veins

- # Inf. thyroid venous plexus

Lymphatics

Pretracheal Inn

Paratracheal Inn

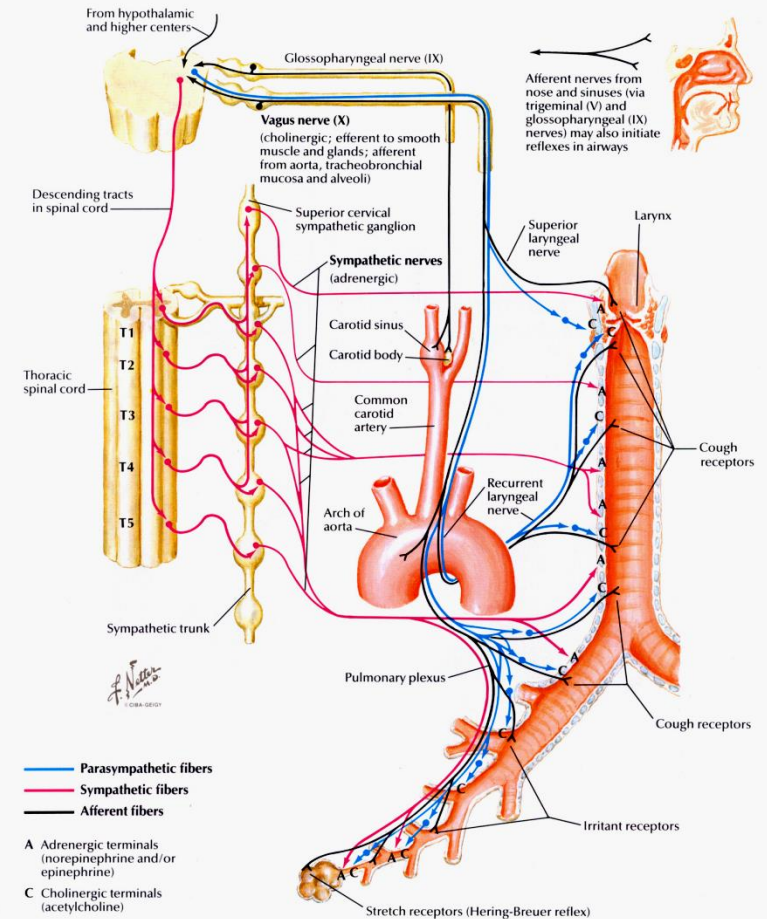
Nerves

P.symp:X cr. nerve:
contraction of
bronchus, increased
secretion

Symp:1.-5. thoracic
sympathetic ganglia

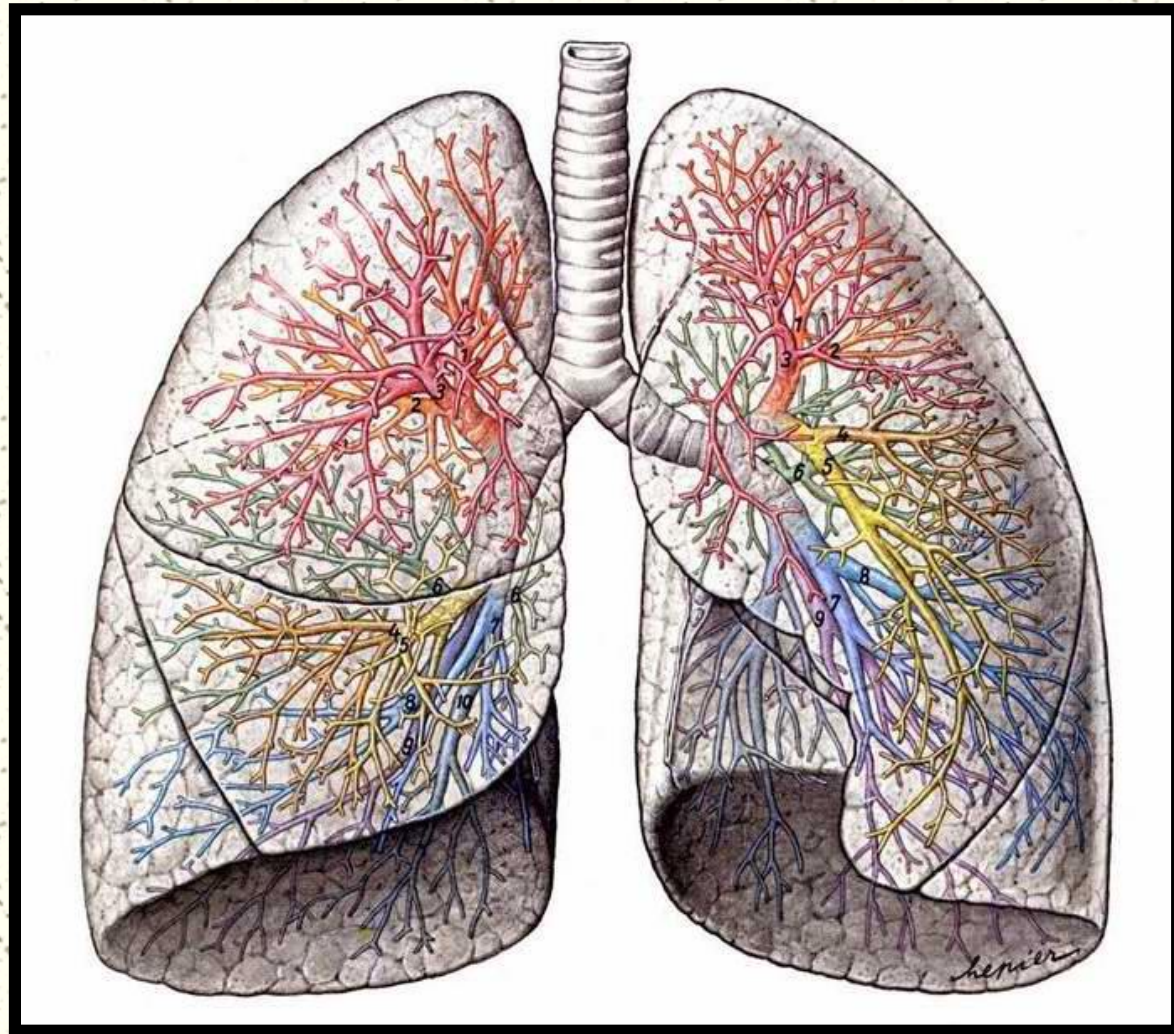
Innervation of Tracheobronchial Tree: Schema

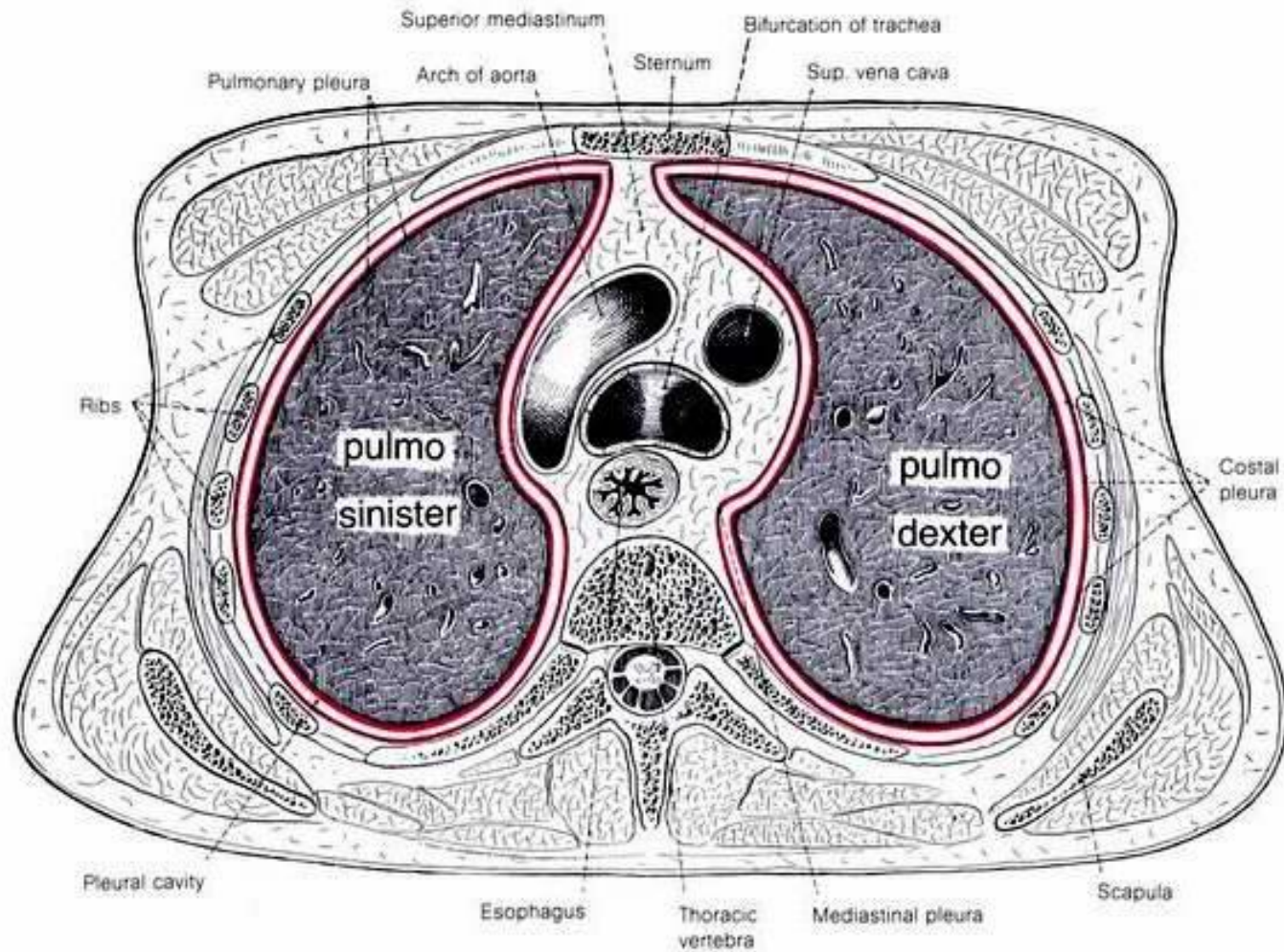
SEE ALSO PLATE 153



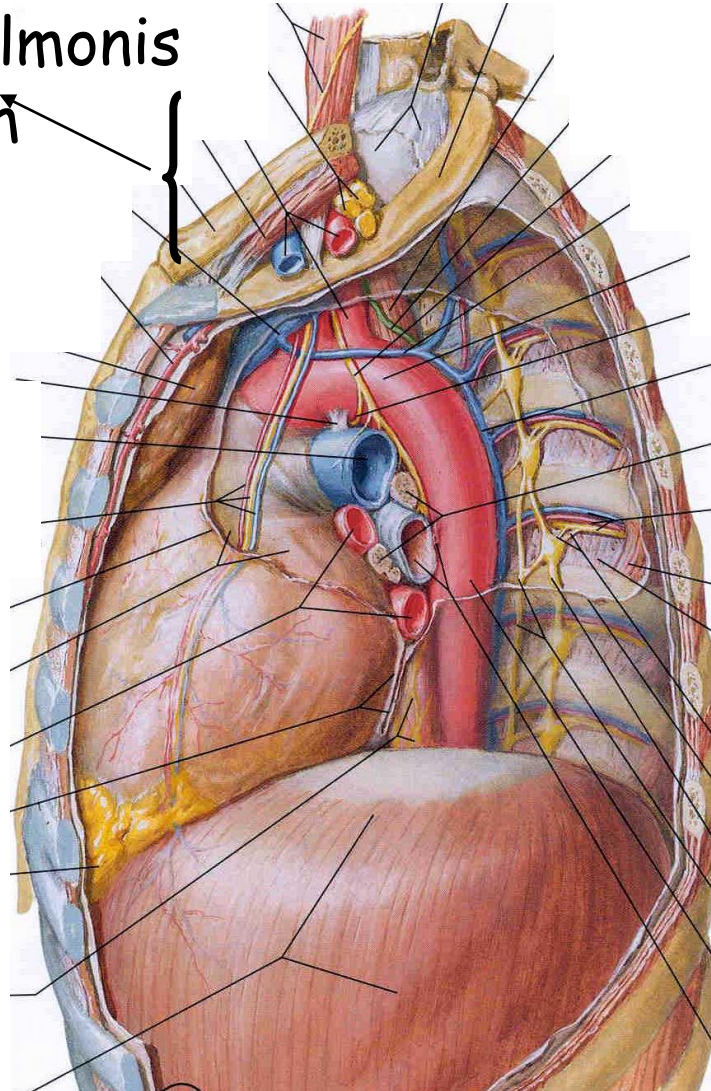
Lungs (Pulmones)

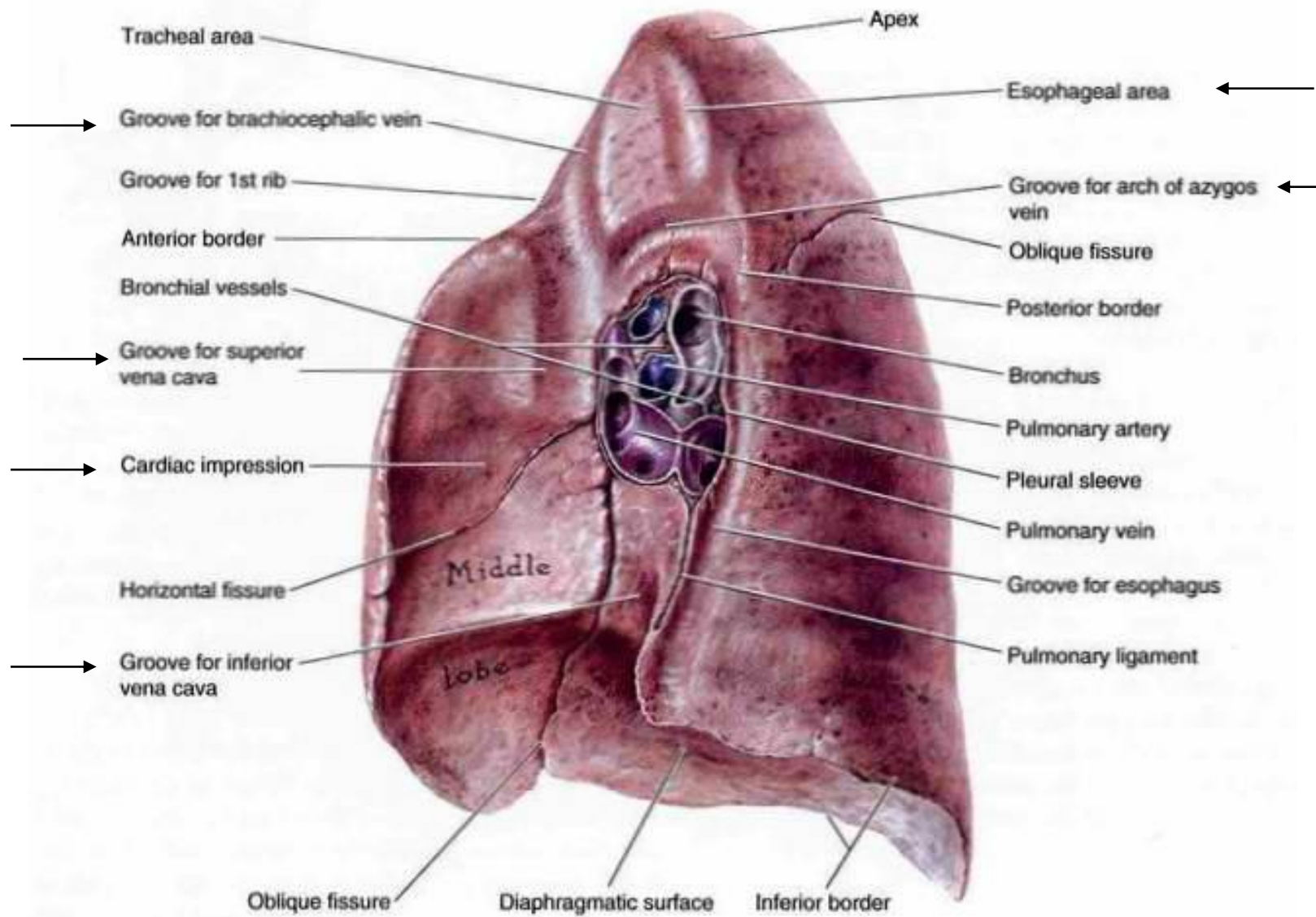
- # Bronchial tree
- # R 600, L 550 g
- # R:3-L:2 lobes
- # Base&apex
- # Costal surface
- # Mediastinal surface
- # Ant&post&inf. borders



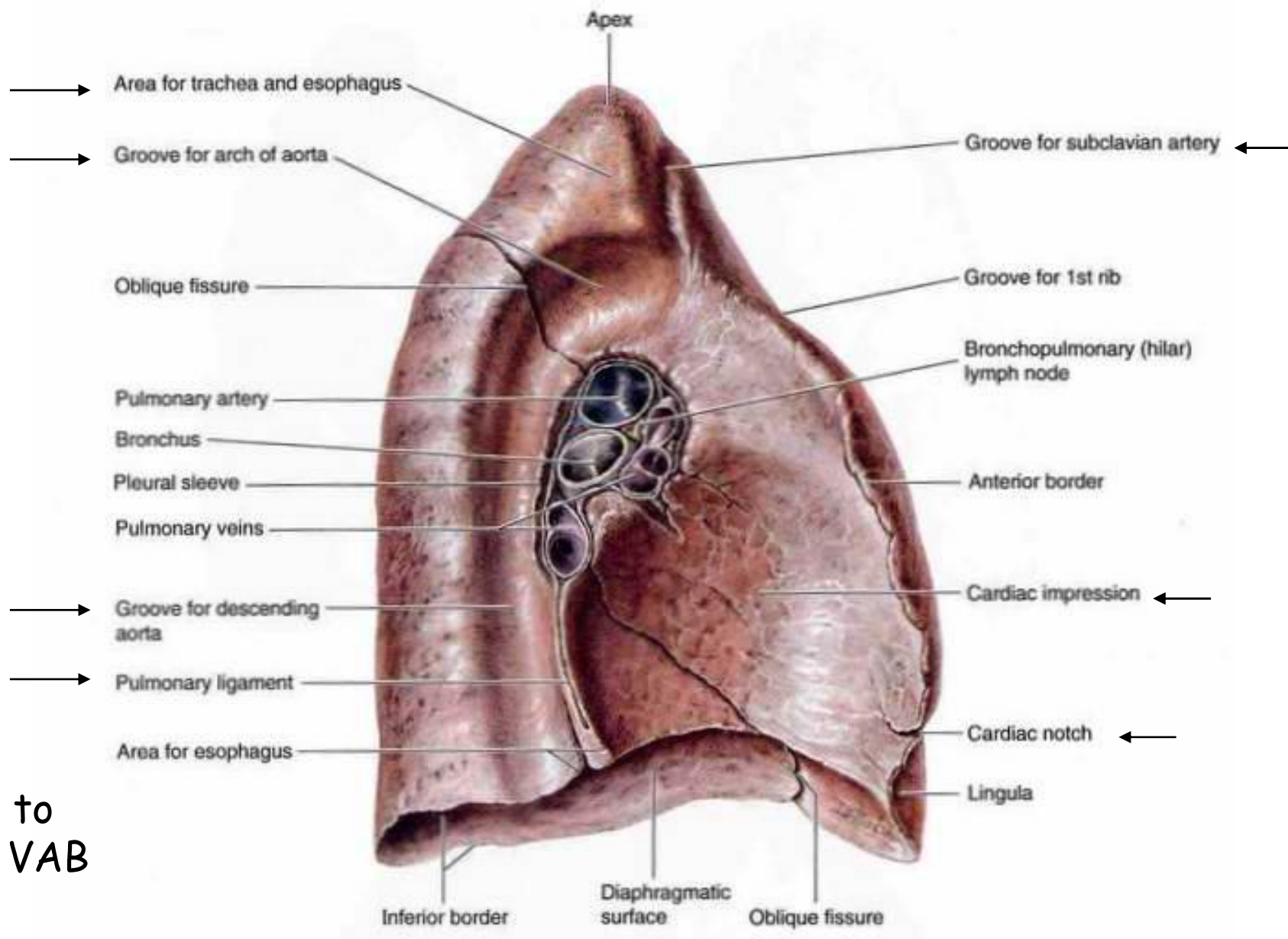


Apex pulmonis
2,5-5 cm



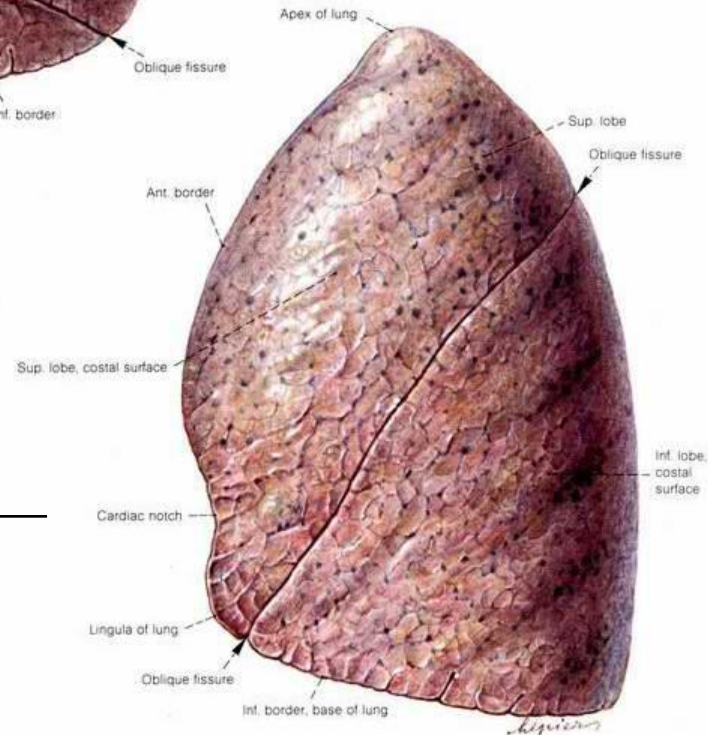
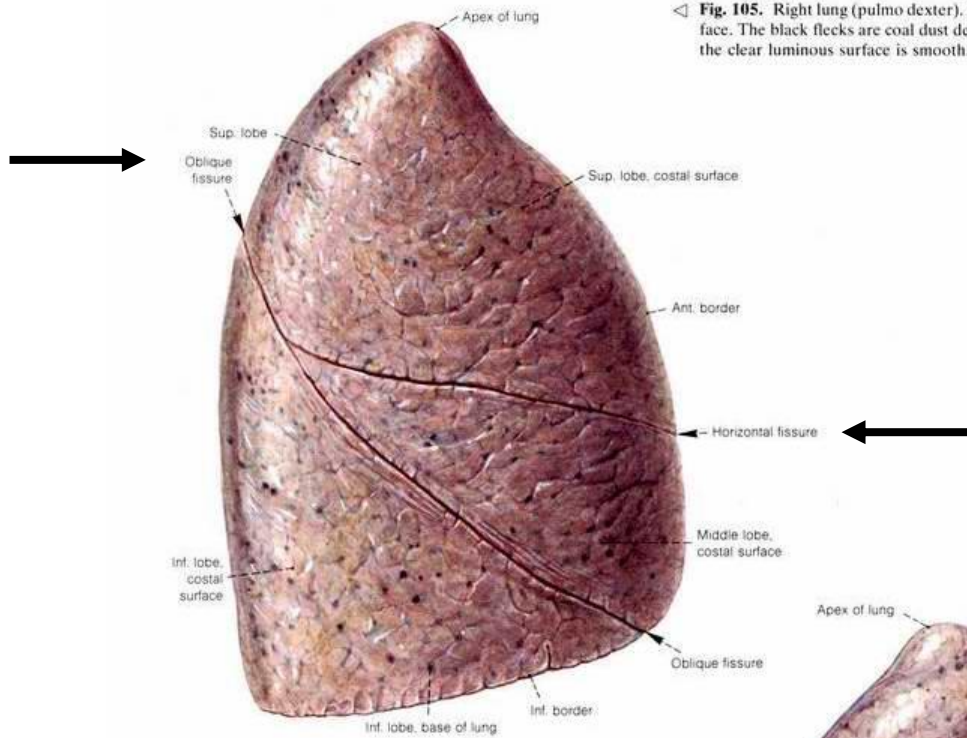


#Front to
back: VAB



Front to back: VAB

◁ **Fig. 105.** Right lung (pulmo dexter). Lateral view of the costal surface. The black flecks are coal dust deposits (anthracotic pigment); the clear luminous surface is smooth.



4-6 intercostal spaces ←

Fig. 106. Left lung. Lateral view. ▷

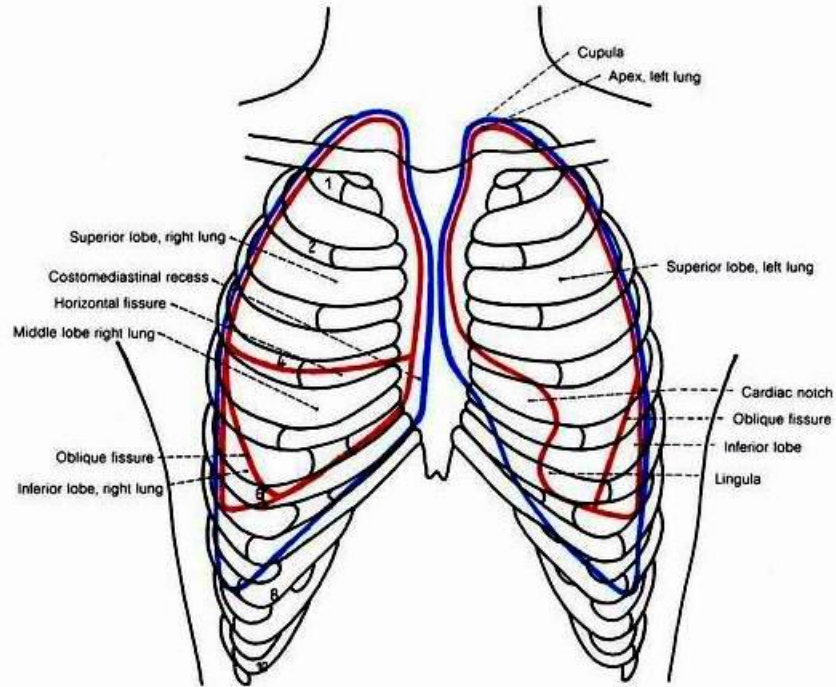


Fig. 125. Ventral view.

trigone

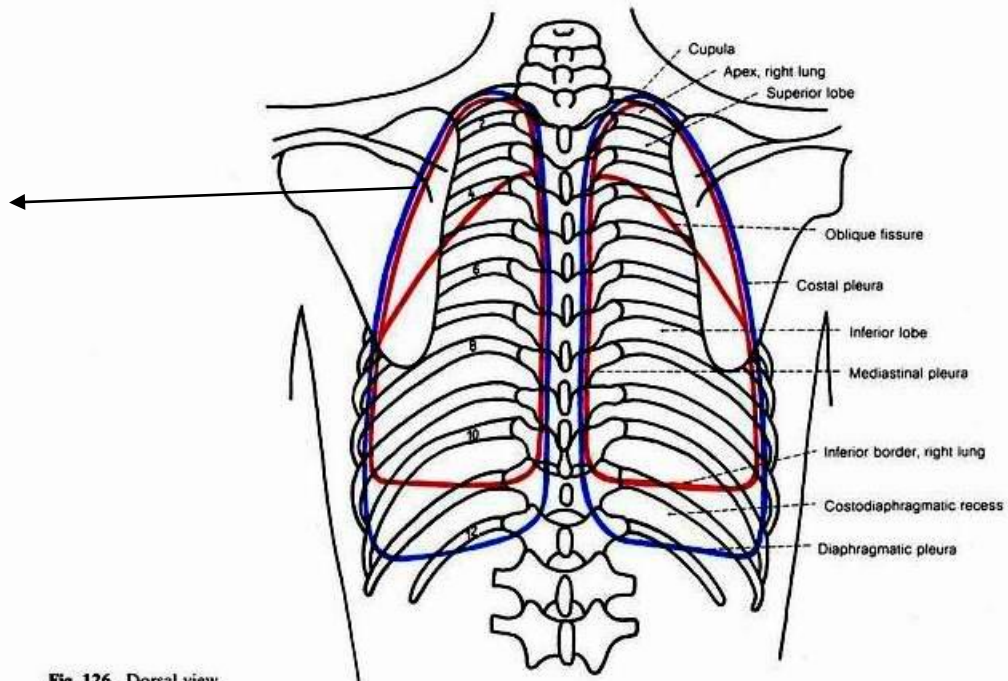
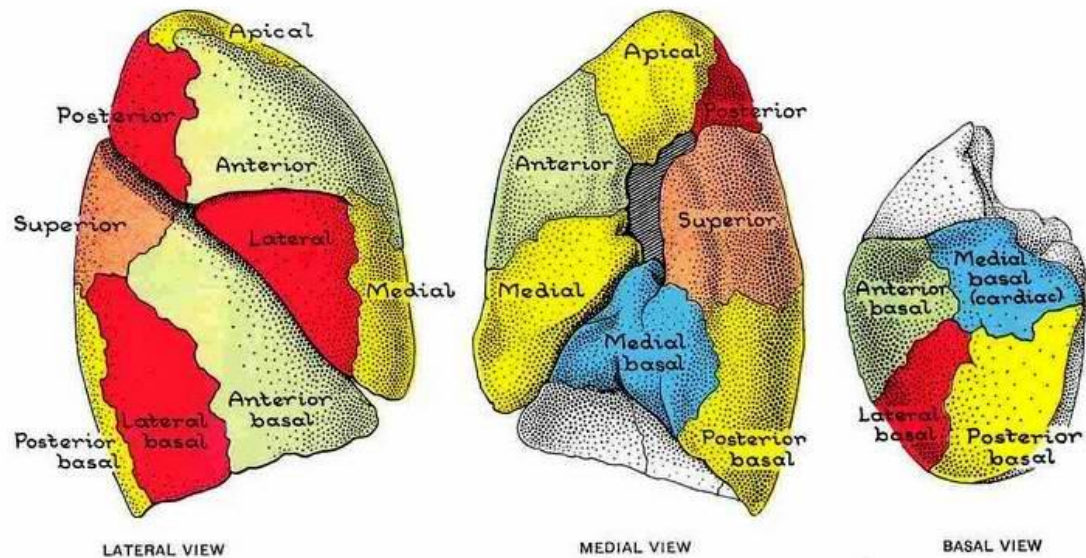
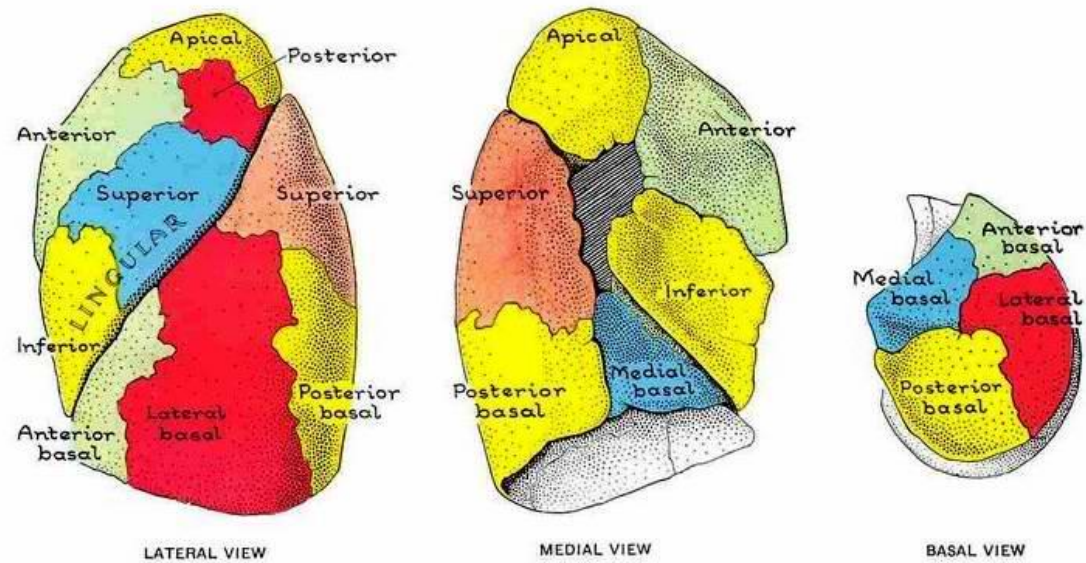


Fig. 126. Dorsal view.

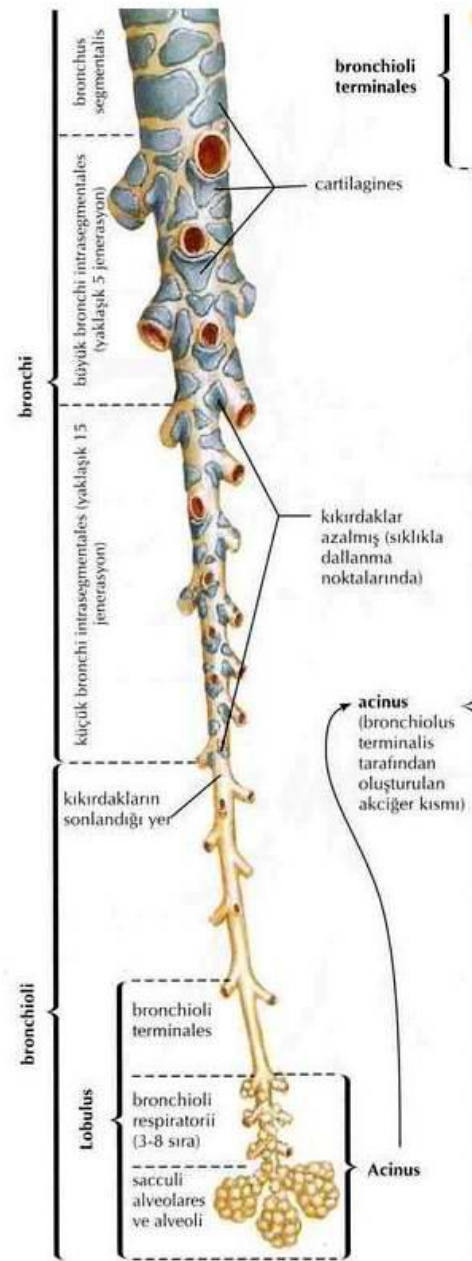


426 Right Broncho-pulmonary Segments

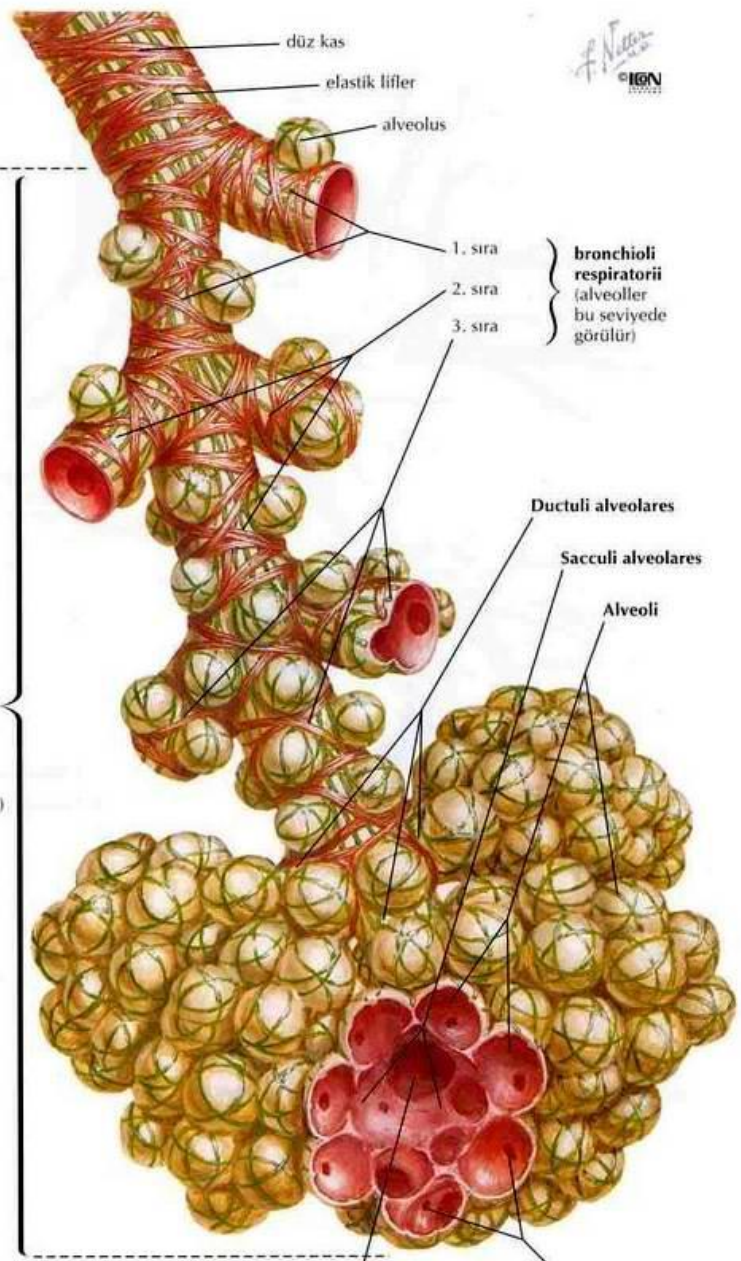


427 Left Broncho-pulmonary Segments

Lobule:
12-18 acinus



İntrapulmoner hava yollarının alt bölümleri



İntrapulmoner hava yollarının yapısı

Bronchial tree

- # Primary bronchus
- # Lobar bronchus
- # Segmental bronchus

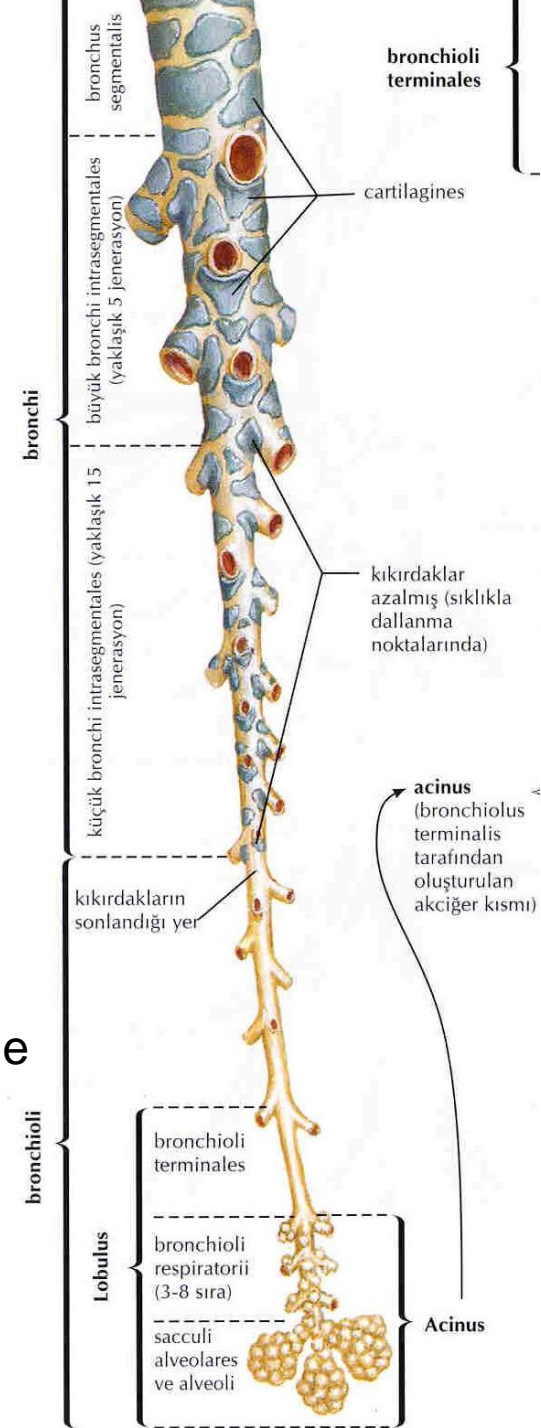


- # Terminal bronchiole
- # Respiratory bronchiole



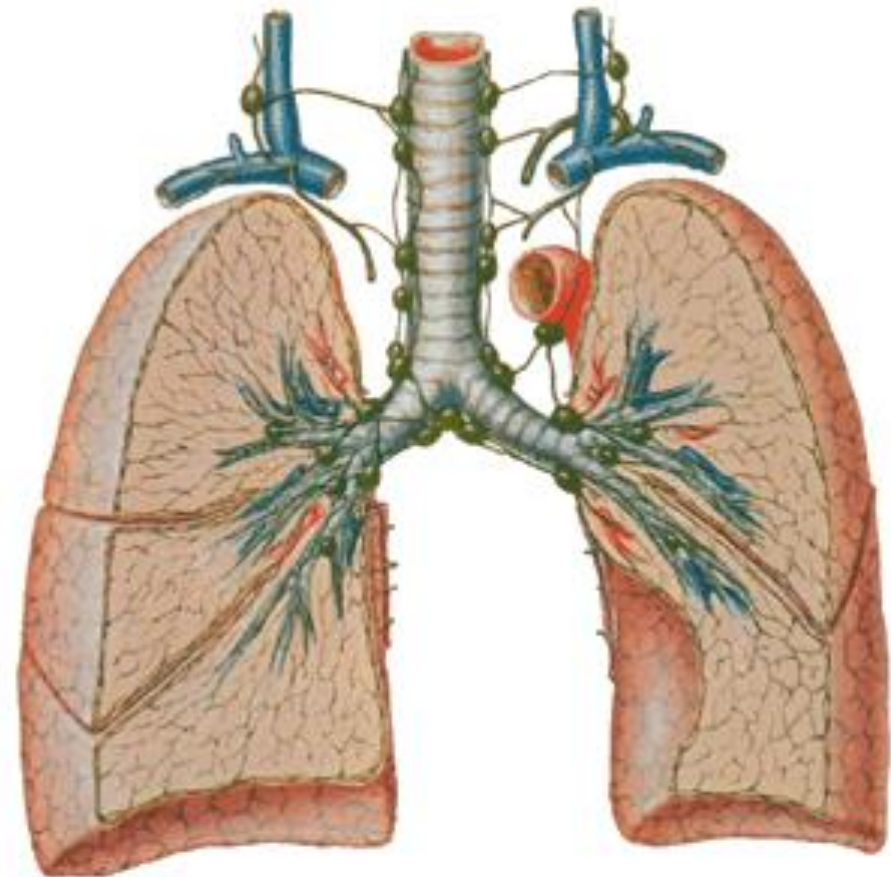
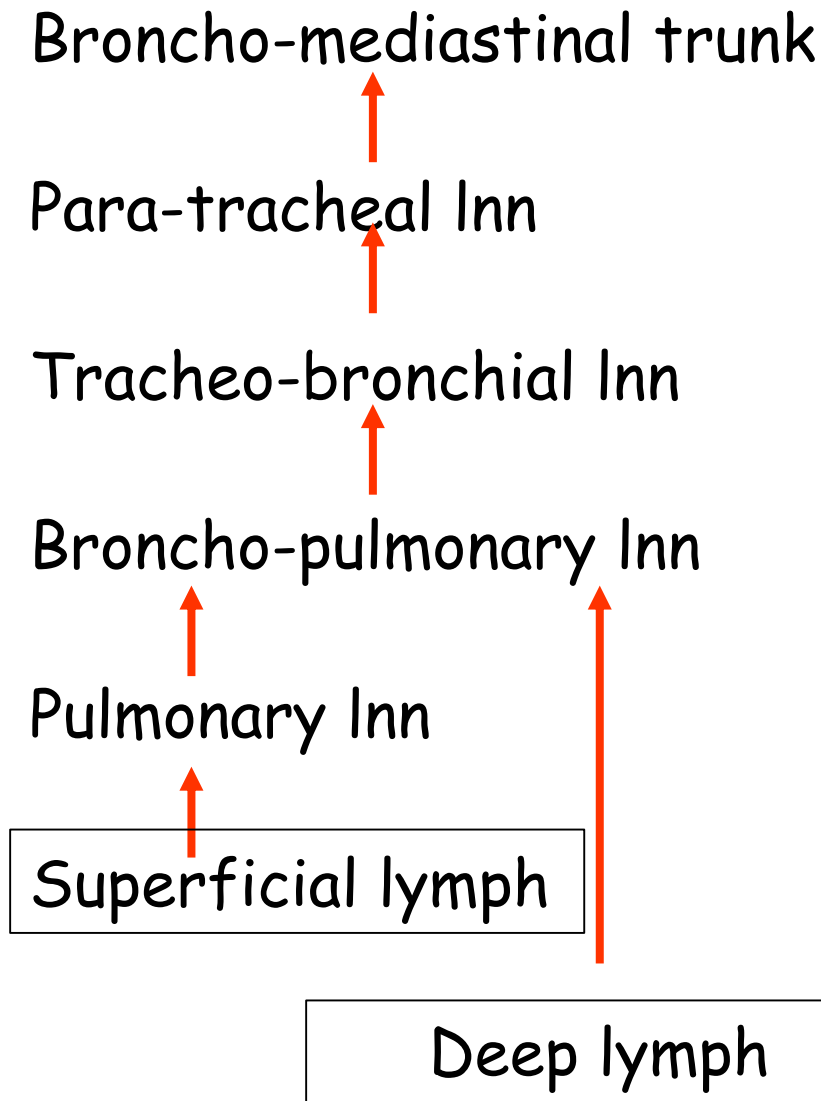
- Alveolar duct
 - Alveolar sac
 - Alveoli
- Acinus

Lobule



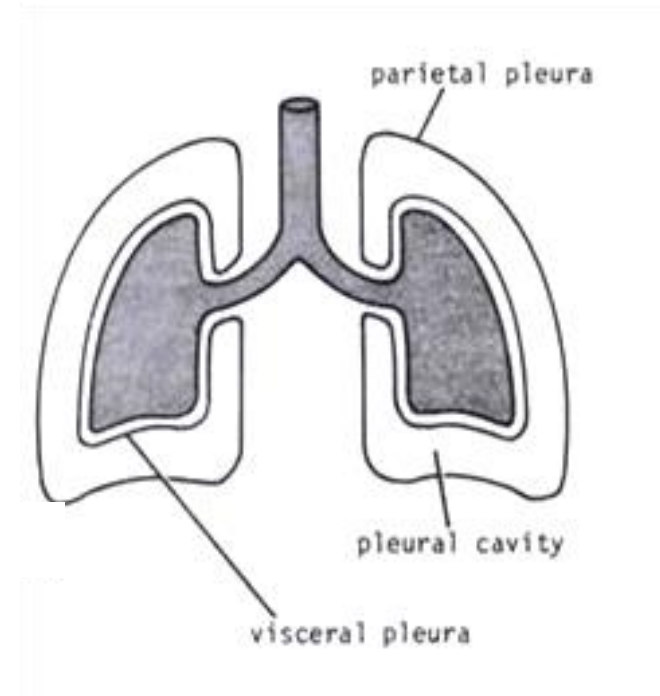
- # Bronchial aa
 - ▣ 3-4 R post intercostal a
 - ▣ Thoracic aorta
- # Bronchial vv
 - ▣ Azygos v
 - ▣ Accesory hemiazygos v
 - ▣ L post intercostal vv
- # Nn of lungs
 - ▣ X
 - ▣ Sympathetic trunk

Lymphatics of lungs



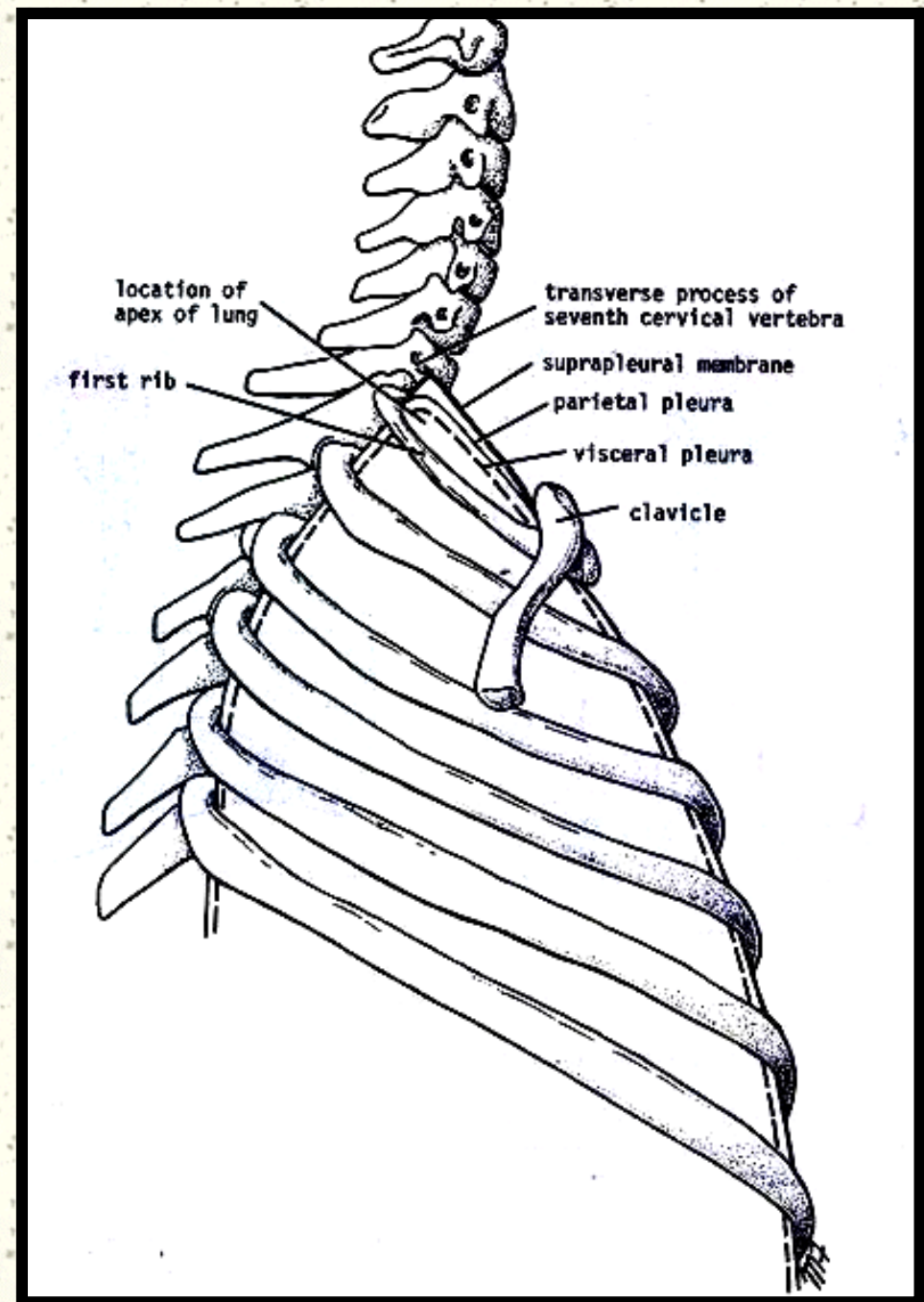
Pleura

- # Visceral pleura-inner layer
- # Parietal pleura-outer layer
 - ▣ Costal
 - ▣ Mediastinal- pulmonary lig.
 - ▣ Diaphragmatic
 - ▣ Cupula
- # Recesses
 - ▣ Costo-diaphragmatic
 - ▣ Costo-mediastinales
 - ▣ Phrenico-mediastinalis



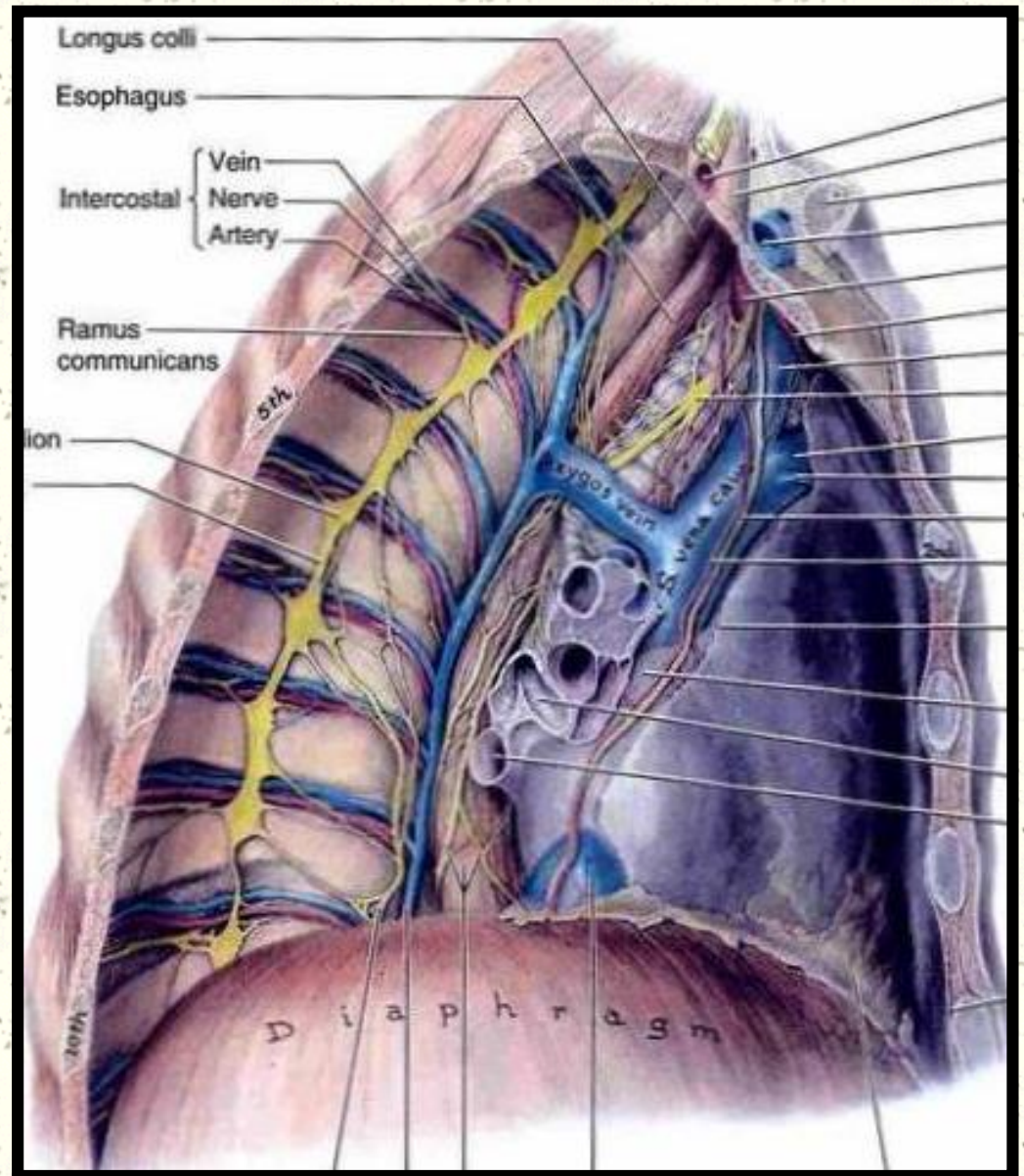
Cupula

- # Suprapleural memb
- # 1. rib
- # Transverse pr C 7
- # Scalenus minimus



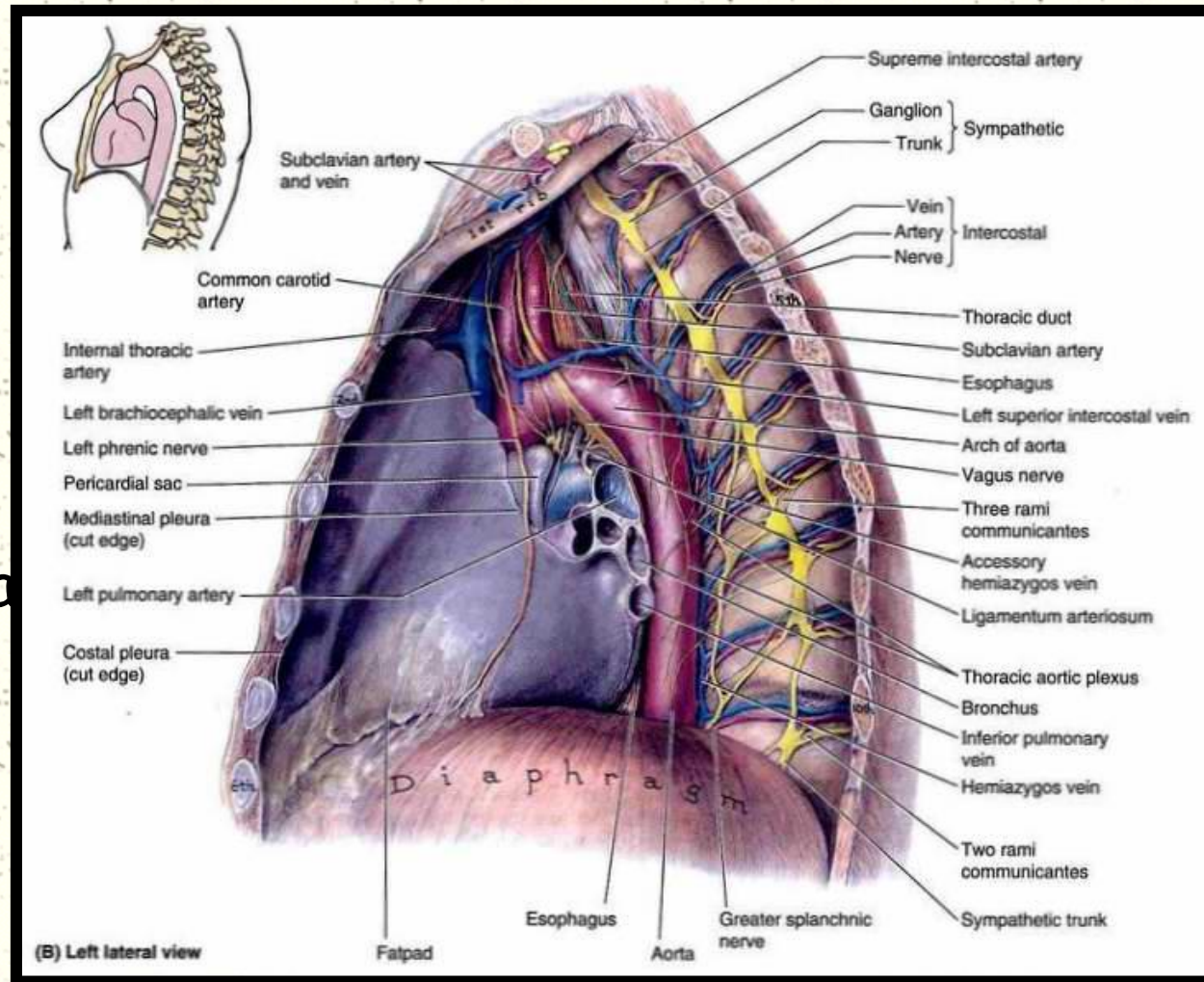
R mediastinal pleura

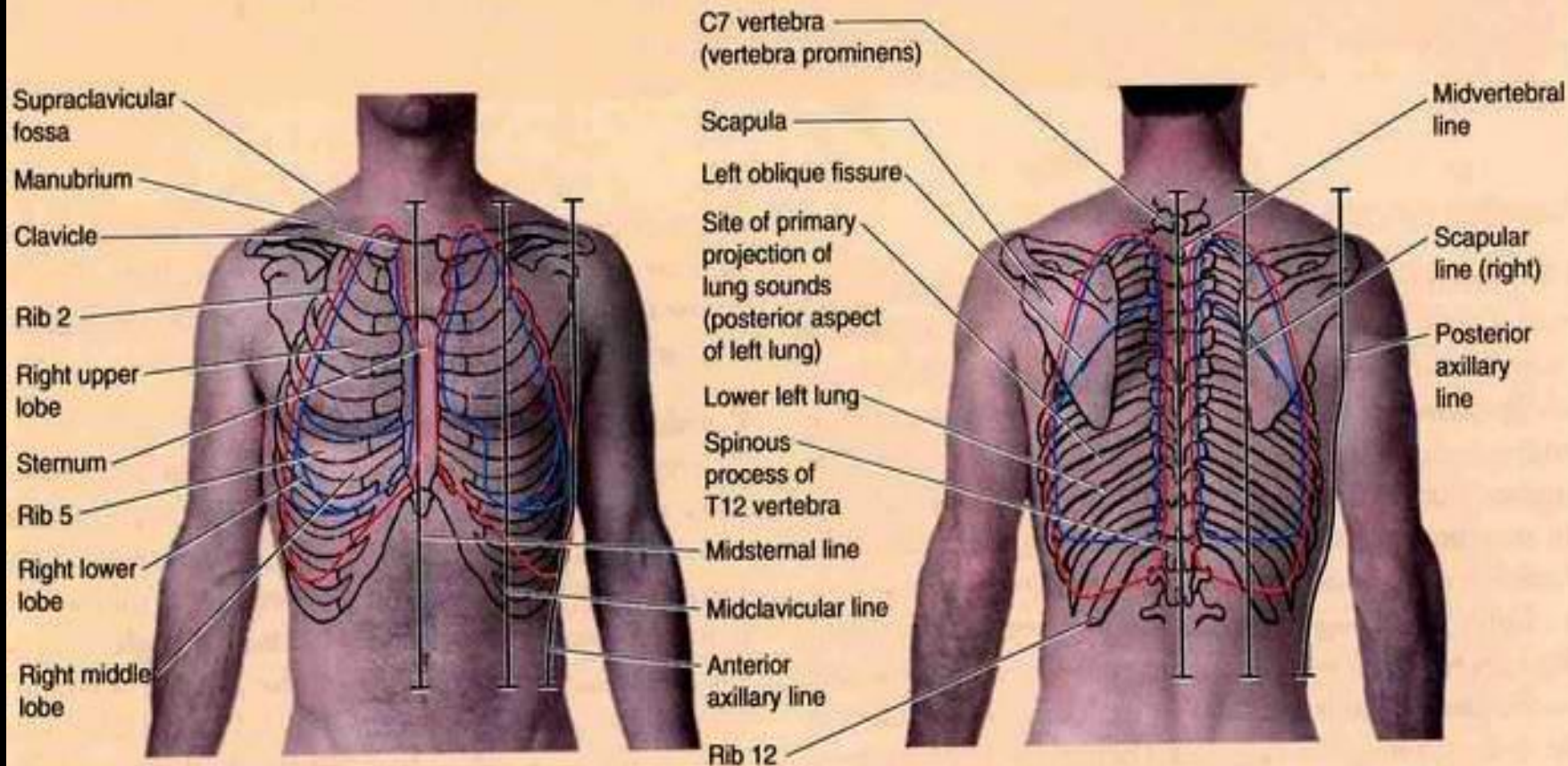
- # VCS
- # Azygos vein
- # Trachea
- # Brachiocephalic v.
- # X. cr. nerve
- # Phrenic n.
- # Oesophagus



L mediastinal pleura

- # Brachiocephalic v.
- # X. cr. nerve
- # Phrenic n.
- # Oesophagus
- # Arch of Aorta
- # L. common carotid a
- # L. subclavian a
- # L. sup intercostal v
- # Thoracic duct





Key

- Lines of reflection of parietal pleura
- Outline of lung

Arteries of parietal pleura

- # Intercostal aa
- # Internal thoracic a
- # Musculophrenic a

Lymph nodes of parietal pleura

- # Intercostal
- # Parasternal
- # Post mediastinal
- # Diaphragmatic

Nerves of parietal pleura

- # Intercostal nn
- # Phrenic n

Endothoracic fascia

